

A. INTRODUCTION

The *New York City Environmental Quality Review (CEQR) Technical Manual* guidelines indicate the need for an open space analysis when an action would result in the physical loss of public open space or the introduction of 200 or more residents or 500 or more workers to an area. The proposed Master Plan for Fordham University's Lincoln Center campus (the proposed action) would result in an increase of more than 200 residents (students living in the proposed dormitory and residents in the two private developments) and more than 500 workers and commuting students. These increased populations would result in an increase in the number of people using local parks and other open spaces. Therefore, a detailed open space analysis was conducted to determine whether the proposed action would result in any significant direct or indirect adverse impacts on open space. This chapter assesses existing conditions (both users and resources), projects conditions in the future without the proposed action, and assesses potential impacts that would result from the proposed action.

CONCLUSIONS

Under existing conditions and in the future without and with the proposed action, passive open space ratios for non-residents exceed the city's open space planning guidelines (see Table 5-1). However, similar to conditions in many areas in Manhattan, the open space ratios for active and total open space, as well as passive ratios for the combined resident and non-resident population, are below (less than) New York City Department of City Planning (DCP) guidelines. These guidelines are considered benchmarks that indicate how well-served an area is by open space, and ratios that are below DCP guidelines generally indicate less access to open space. However, the *CEQR Technical Manual* recognizes that these guidelines are goals that are not feasible for many areas of the city, and they are not considered specific impact thresholds. In addition, open space shortfalls in the quantitative analysis would be offset by the availability of significant open spaces—such as Central Park, Riverside Park, and Hudson River Park—just outside the study area. Based on the open space analysis presented in this chapter, the proposed action would not result in significant adverse impacts on open space and recreational facilities.

B. METHODOLOGY

STUDY AREAS

This analysis of potential open space impacts was conducted based on the methodology of the *CEQR Technical Manual*. According to CEQR guidelines, the first step in assessing potential open space impacts is to establish study areas appropriate for the new population(s) to be added as a result of the proposed actions. Study areas are based on the distance a person is assumed to walk to reach a neighborhood open space. Workers (or populations not living in an area, e.g.,

**Table 5-1
Summary of Open Space Ratios, 2014 and 2032**

Ratio	DCP Guideline	Existing Ratio	Future Without the Proposed Action	Future With the Proposed Action	Percent Change Future Without to Future With the Proposed Actions
			Ratio	Ratio	Ratio
2014 Non-Residential Study Area					
Passive/non-residents	0.15	0.39	0.38	0.37	-4.35
Passive/total population	0.28/0.29/0.29*	0.25	0.23	0.22	-3.68
2014 Residential Study Area					
Total/residents	2.50	2.19	2.01	2.00	-0.97
Passive/residents	0.50	1.24	1.15	1.14	-0.97
Active/residents	2.00	0.95	0.86	0.85	-0.97
Passive/total population	0.28/0.29/0.29*	0.47	0.46	0.45	-1.37
2032 Non-Residential Study Area					
Passive/non-residents	0.15	0.39	0.35	0.32	-8.05
Passive/total population	0.28/0.29/0.29*	0.25	0.21	0.20	-6.84
2032 Residential Study Area					
Total/residents	2.50	2.19	1.78	1.75	-1.72
Passive/residents	0.50	1.24	1.04	1.02	-1.72
Active/residents	2.00	0.95	0.74	0.73	-1.72
Passive/total population	0.28/0.29/0.29*	0.47	0.42	0.41	-2.52
Notes: *DCP Guideline is a weighted average combining 0.15 acres per 1,000 workers and 0.50 acres per 1,000 residents; existing conditions/future without the proposed action/future with the proposed action.					

commuting students) typically use passive open spaces and are assumed to walk about a ¼-mile distance from their places of work. Residents are more likely to travel farther to reach parks and recreational facilities. They are assumed to walk about a ½-mile distance to reach both passive and active neighborhood open spaces. Because the proposed action has both commercial and residential (dormitory) components that exceed thresholds for analysis, two study areas are evaluated—a commercial study area based on a ¼-mile distance from the project site, and a residential study area based on a ½-mile distance.

As recommended in the *CEQR Technical Manual*, the open space study areas comprise all census tracts that have at least 50 percent of their area located within either the ¼-mile or the ½-mile radius of the project site. All open spaces, as well as the relevant populations in census tracts that fall at least 50 percent within the radius, are included in the study areas.

The proposed action’s potential to result in shadow impacts on open spaces is discussed in Chapter 6, “Shadows.”

INVENTORY OF OPEN SPACE RESOURCES

Publicly accessible open spaces and recreational facilities within the study areas are inventoried to determine their size, character, and condition. Public spaces that do not offer useable recreational areas are excluded from the survey, as are open spaces that are not accessible to the general public. The information used for this analysis was gathered through field studies conducted in December 1999, October and November 2002, December 2004, and October 2007; from the New York City Department of Parks and Recreation (DPR); and from other city agencies responsible for public open spaces.

At each open space, active and passive recreational spaces are noted. Active open space facilities are characterized by activities such as jogging, field sports, and children's active play. Such open space features might include basketball courts, baseball fields, or play equipment. Passive open space facilities are characterized by activities such as strolling, reading, sunbathing, and people-watching. Some spaces, such as lawns and public esplanades, can be both active and passive recreation areas.

In addition, open spaces that are nearby but outside the study areas—such as Hudson River Park, Riverside Park, and much of Central Park—were considered qualitatively because they are likely to be used by study area populations. The Fordham campus open space is also discussed qualitatively.

ADEQUACY OF OPEN SPACE RESOURCES

QUANTIFIED ANALYSIS

The adequacy of open space in the study area is assessed quantitatively using a ratio of usable open space acreage to the study area population—referred to as the open space ratio. A quantified analysis is based on both the adequacy of the quantity of open space and how the proposed action would change the open space ratios in the study area compared with the ratios in the future without the proposed action. The quantitative analysis assesses whether the proposed action would reduce the open space ratio and consequently result in overburdening existing facilities or further exacerbating a deficiency of open space.

COMPARISON TO DCP GUIDELINES

To assess the adequacy of the quantity of open space resources, open space ratios are compared against goals set by DCP. These open space goals are often not feasible for many areas of the city and are not meant to be the sole determinant as to whether a proposed action might have a significant adverse impact on open space resources. However, they are helpful guidelines in understanding the extent to which user populations are served by open space resources. The following guidelines are used in this type of analysis:

- For non-residential populations, 0.15 acres of passive open space per 1,000 non-residents is typically considered adequate.
- For residential populations, the city guidelines attempt to achieve a ratio of 2.5 acres per 1,000 residents and non-residents for large-scale proposals. Ideally, this would comprise 0.50 acres of passive space and 2.0 acres of active open space per 1,000 residents. However, as noted above, this planning goal is often not feasible for many areas of the city. Therefore, this analysis also compares the study area open space ratio to the existing citywide community district median of 1.5 acres of parkland per 1,000 residents.
- For the total population (both the resident and non-resident population of the study area), a target open space ratio, established by creating a weighted average of the amount of open space necessary to meet the DCP guideline of 0.50 acres of passive open space per 1,000 residents and 0.15 acres of passive open space per 1,000 non-residents, is considered in this analysis.

IMPACT ASSESSMENT

Impact assessment is both quantitative and qualitative. The latter considers nearby destination resources and project-created open spaces or recreational facilities not available to the general public. It is recognized that DCP open space planning goals are not feasible for many areas of the city, and they are not considered impact thresholds. Rather, they are benchmarks indicating how well an area is served by open space. The impact assessment also considers the existing citywide community district median of 1.5 acres of parkland per 1,000 residents.

C. INITIAL QUANTITATIVE ASSESSMENT

The *CEQR Technical Manual* suggests that an initial quantitative assessment may be useful in determining if a full, detailed open space analysis is necessary or whether the open space assessment can be targeted to a specific user group. The initial quantitative assessment compares existing open space ratios to ratios in the future with the proposed action (see Table 5-2). The initial quantitative assessment does not consider changes to population and open space acreage that would occur in the future without the proposed action.

Table 5-2
Initial Quantitative Assessment of Adequacy of Open Space Resources

Ratio	DCP Guideline	Existing Ratio	Future With the Proposed Action Ratio	Percent Change
2014 Non-Residential Study Area				
Passive/non-residents	0.15	0.39	0.38	-4.5%
Passive/total population	0.28/0.29*	0.25	0.24	-4.0%
2014 Residential Study Area				
Total/residents	2.50	2.19	2.17	-1.1%
Passive/residents	0.50	1.24	1.23	-1.1%
Active/residents	2.00	0.95	0.94	-1.1%
Passive/total population	0.28/0.29*	0.47	0.46	-1.5%
2032 Non-Residential Study Area				
Passive/non-residents	0.15	0.39	0.36	-9.1%
Passive/total population	0.28/0.29*	0.25	0.23	-8.0%
2032 Residential Study Area				
Total/residents	2.50	2.19	2.14	-2.3%
Passive/residents	0.50	1.24	1.21	-2.3%
Active/residents	2.00	0.95	0.93	-2.3%
Passive/total population	0.28/0.29*	0.47	0.45	-3.1%
Notes:	The initial quantitative assessment does not consider changes to population and open space acreage in the future without the proposed action. *DCP Guideline is a weighted average combining 0.15 acres per 1,000 workers and 0.50 acres per 1,000 residents: existing/future with the proposed action conditions are listed.			
Sources:	U.S. Census of Population and Housing, 2000; Central Transportation Planning Package (CTPP) 2000—Part 2; NYC Department of Parks & Recreation; AKRF, Inc. field surveys.			

In the non-residential study area, the existing passive open space ratio per 1,000 non-residents is well above DCP guidelines while the passive ratio for the total population is just below DCP guidelines (see Table 5-2). In the residential study area, the ratio of total open space ratio is below the DCP guideline of 2.5 acres per 1,000 residents, but well above the citywide community district median of 1.5 acres per 1,000 residents. Furthermore, while the residential study area has a deficiency of active open space, the passive ratio for both the residential population and combined resident and worker population exceeds DCP guidelines.

In the future with the proposed action, and without accounting for any changes in population and open space acreage in the future without the proposed action, all open space ratios that currently exceed DCP guidelines would continue to do so. According to the *CEQR Technical Manual*, a detailed assessment is warranted if a proposed project is expected to decrease the open space ratio under the Build conditions by 5 percent or more, as this is considered a substantial change. In addition, if a study area exhibits a low open space ratio (i.e., below the community district median of 1.5 acres per 1,000 residents), even a decrease of less than 5 percent in the ratio may have an adverse impact. In this case, the 2032 passive ratios in the non-residential study area would decline by more than 5 percent. In addition, although the active open space ratio would decline by only 1 percent and 2 percent in 2014 and 2032, respectively, the existing ratio falls below the DCP guideline of 2.0 acres of active open space per 1,000 residents. Therefore, a detailed open space assessment was conducted to determine whether the proposed project would result in any significant adverse impacts on open space.

D. EXISTING CONDITIONS

STUDY AREA POPULATION

NON-RESIDENTIAL STUDY AREA

The non-residential study area for the proposed action generally extends north to West 66th Street, east to Central Park West/Eighth Avenue, south to West 54th Street, and west to the Hudson River (see Figure 5-1). It includes four census tracts: 139, 145, 147, and 149.

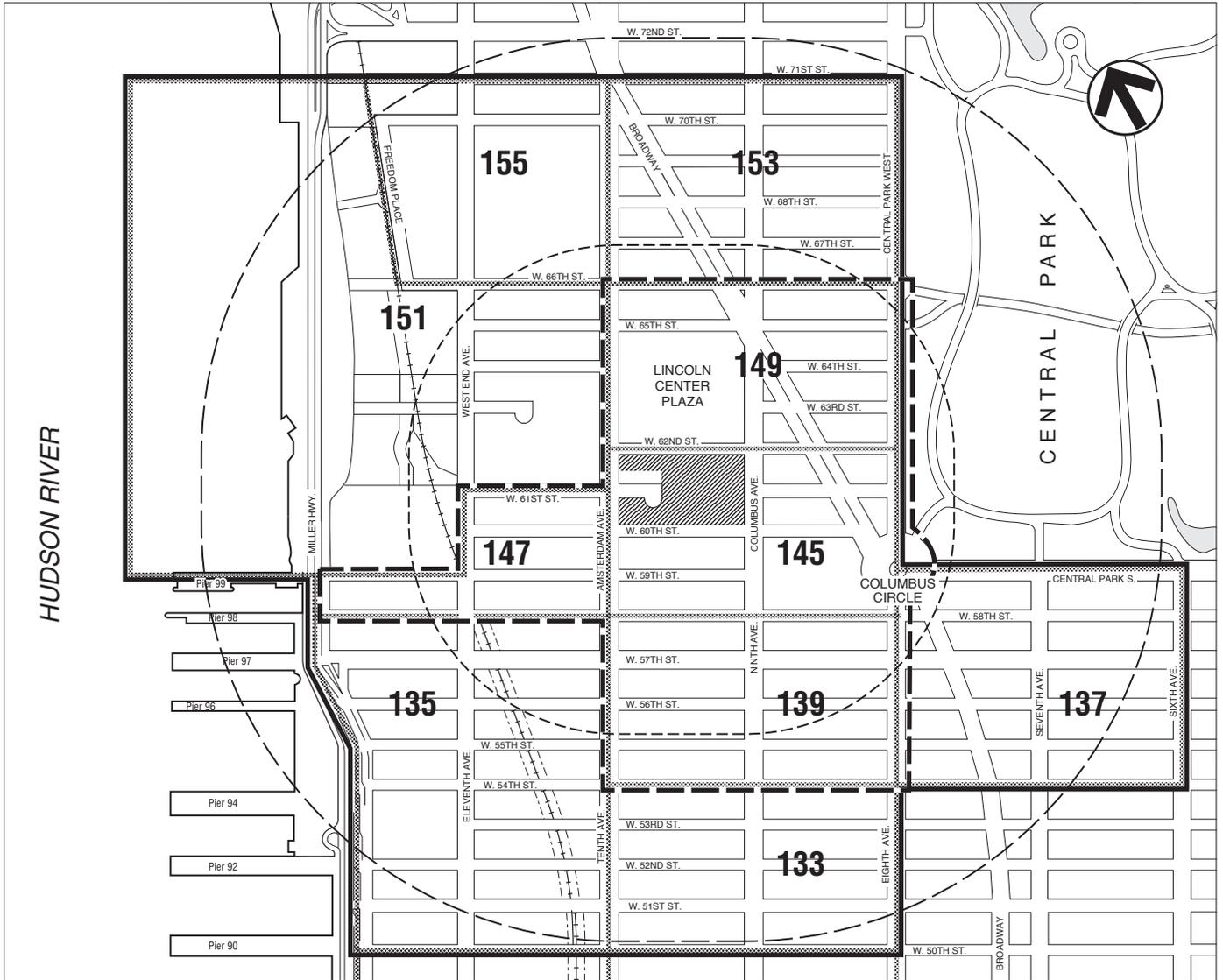
Based on 2000 reverse journey-to-work data compiled by DCP, the worker (or daytime/commuting student) population in the ¼-mile area is estimated to be 37,925, including an approximate combined daytime enrollment at John Jay College of Criminal Justice, Fordham University's Manhattan campus, New York Institute of Technology, Alvin Ailey American Dance Theatre School, and Juilliard School of Music. Including an estimated residential population of 22,393, the total study area population is 60,318 (see Table 5-3). Although this analysis conservatively assumes that residents and employees are separate populations, it is possible that some of the residents live near their workplace. As a result, there is likely to be some double-counting of the daily user population in which residential and non-residential populations overlap, resulting in a more conservative analysis.

RESIDENTIAL STUDY AREA

The residential study area includes the four census tracts located in the non-residential study area, plus six additional census tracts, delineating a study area that extends generally north to West 71st Street, east as far as Sixth Avenue, south to West 50th Street, and west to the Hudson River.

Although there is no quantitative analysis dedicated exclusively to the non-residential population within the residential study area, the *CEQR Technical Manual* calls for a quantitative analysis of the total population within the residential study area, which includes the non-residential as well as the residential populations.

Based on 2000 reverse journey-to-work data compiled by DCP, the worker and visitor population within the residential study area was 101,700 in 2000. The residential population was 60,887 for a total residential and non-residential population of 162,587. Again, this estimate conservatively assumes that the residential and non-residential populations are distinct from each other.



-  Project Site
-  1/2-Mile Perimeter
-  1/4-Mile Perimeter
-  1/2-Mile Study Area Boundary
-  1/4-Mile Study Area Boundary
-  Census Tract Boundary
- 145** Census Tract Number

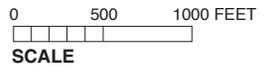


Figure 5-1
Census Tracts and Study Areas

Table 5-3

Existing Population in the Non-Residential and Residential Study Areas

Census Tracts	Residential Population	Non-Residential Population	Total User Population
Non-Residential Study Area			
139	9,795	5,380	15,175
145	4,411	10,205	14,616
147	2,231	1,500	3,731
149	5,956	9,840	15,796
Other Daytime Population*	0	11,000	11,000
Total Non-Residential Area	22,393	37,925	60,318
Residential Study Area			
133	5,805	4,490	10,295
135	3,505	8,835	12,340
137	6,797	36,560	43,357
151	7,091	4,035	11,126
153	9,040	7,915	16,955
155	6,256	1,940	8,196
Total Residential Area	60,887	101,700	162,587
Note:			
* This is the approximate combined daytime enrollment at John Jay College of Criminal Justice, Fordham University's Manhattan campus, New York Institute of Technology, Alvin Ailey American Dance Theatre, and Juilliard School of Music (within non-residential study area).			
Sources: U.S. Census of Population and Housing, 2000; Central Transportation Planning Package (CTPP) 2000—Part 2.			

STUDY AREA AGE DATA

Within a given area, the age distribution of a population affects the way open spaces are used and the need for various types of recreational facilities. Typically, children 4 years old or younger use traditional playgrounds that have play equipment for toddlers and preschool children. Children ages 5 through 9 typically use traditional playgrounds, as well as grassy and hard-surfaced open spaces, which are important for such activities as ball playing, running, and skipping rope. Children ages 10 through 14 use playground equipment, court spaces, little league fields, and ball fields. Teenagers' and young adults' needs tend toward court game facilities such as basketball and field sports. Adults between the ages of 20 and 64 continue to use court game facilities and fields for sports, as well as more individualized recreation such as rollerblading, biking, and jogging, requiring bike paths, promenades, and vehicle-free roadways. Adults also gather with families for picnicking, ad hoc active sports such as frisbee, and recreational activities in which all ages can participate. Senior citizens engage in active recreation such as handball, tennis, gardening, and swimming, as well as recreational activities that require passive facilities.

NON-RESIDENTIAL STUDY AREA

As shown in Table 5-4, within the non-residential study area, adults over the age of 19 and under the age of 65 comprise approximately 78.46 percent of the population, or 17,569 persons. Children under five make up 2.97 percent of the population (666 persons), children from five to nine constitute 1.62 percent of the population (363 persons), pre-teens and young teens account for 1.27 percent of the population (285 persons), and older teens make up approximately 3.60 percent of the population (806 persons). More than 12 percent of residents, or 2,704 persons, are age 65 or older.

Table 5-4
Existing Population in the Non-Residential and Residential Study Areas

Census Tract	Total Residential Population	Under 5		Age 5-9		Age 10-14		Age 15-19		Age 20-64		Age 65+		Med. Age
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
Non-residential Study Area														
139	9,795	191	1.95	128	1.31	110	1.12	146	1.49	8,003	81.70	1,217	12.42	37.9
145	4,411	211	4.78	77	1.75	70	1.59	71	1.61	3,519	79.78	463	10.50	35.5
147	2,231	78	3.50	59	2.64	29	1.30	310	13.90	1,717	76.96	38	1.70	26.9
149	5,956	186	3.12	99	1.66	76	1.28	279	4.68	4,330	72.70	986	16.55	39.1
Non-Residential Study Area Total	22,393	666	2.97	363	1.62	285	1.27	806	3.60	17,569	78.46	2,704	12.08	/
Residential Study Area														
133	5,805	147	2.53	117	2.02	119	2.05	118	2.03	4,760	82.00	544	9.37	33.6
135	3,505	179	5.11	192	5.48	223	6.36	187	5.34	2,182	62.25	542	15.46	38.7
137	6,797	168	2.47	87	1.28	106	1.56	76	1.12	5,160	75.92	1,200	17.65	40.5
151	7,091	346	4.88	366	5.16	344	4.58	330	4.65	5,009	70.64	696	9.82	32.3
153	9,040	390	4.31	182	2.01	128	1.42	114	1.26	7,045	77.93	1,181	13.06	37.5
155	6,256	237	3.79	150	2.40	99	1.58	82	1.31	3,798	60.71	1,890	30.21	52.4
Residential Study Area Total	60,887	2,133	3.50	1,457	2.39	1,304	2.14	1,713	2.81	45,523	74.77	8,757	14.38	/

Thus, although there is a range of age groups present in population, the non-residential study area is overwhelmingly adult, with more than 78 percent of residents between 20 and 65 and about 90 percent of its residents over the age of 20.

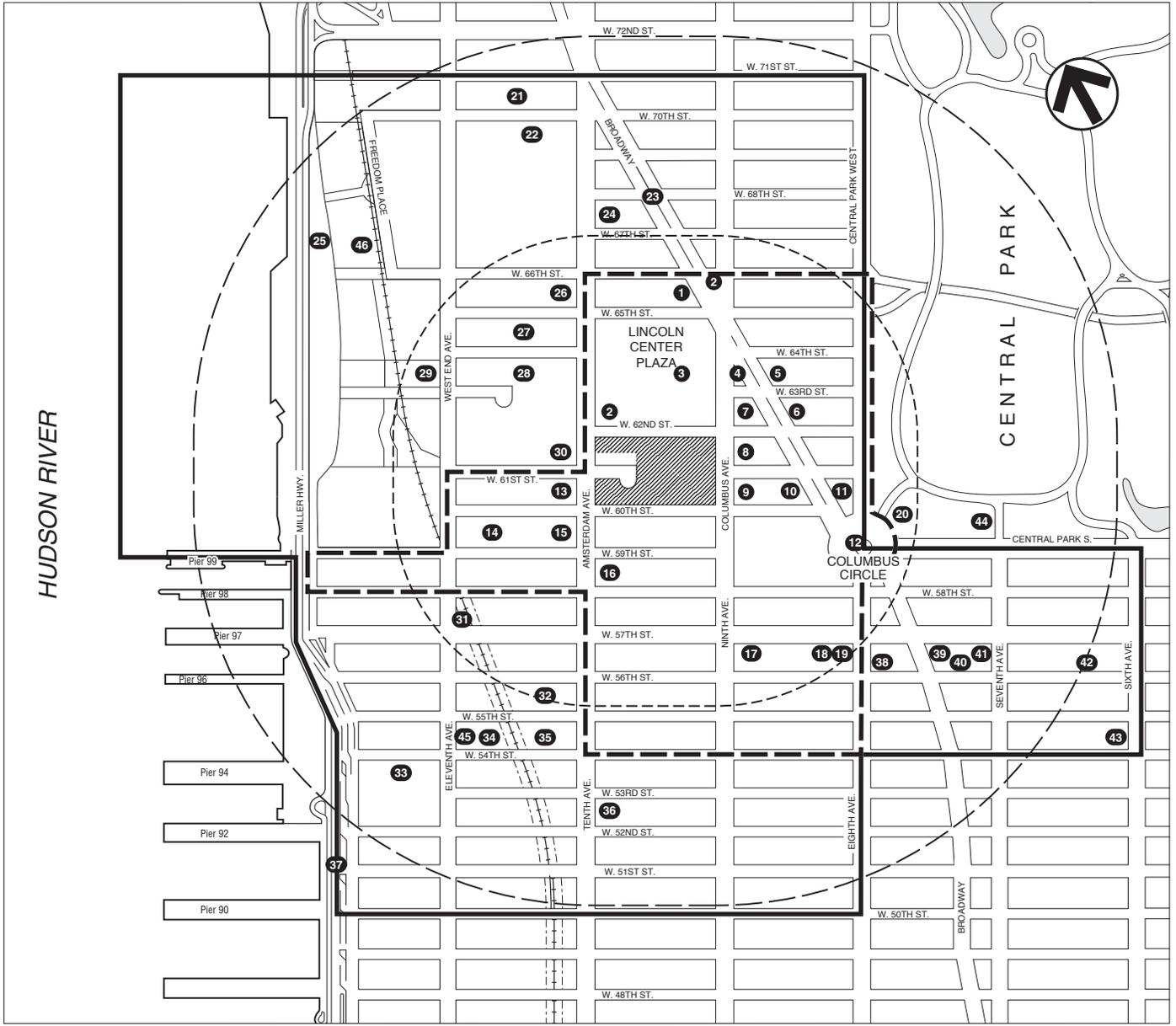
RESIDENTIAL STUDY AREA

Within the residential study area, adults over the age of 19 and under the age of 65 comprise approximately 74.77 percent of the population, or 45,523 persons. Children under five are 3.50 percent of the population (2,133 persons), children from five to nine make up 2.39 percent of the population (1,457 persons), ages 10 to 14 account for 2.14 percent of the population (1,304 persons), and older teens make up approximately 2.81 percent of the population (1,713 persons). 14.38 percent of residents, or 8,757 persons, are age 65 or older.

STUDY AREA OPEN SPACES

NON-RESIDENTIAL STUDY AREA

Eighteen publicly accessible open space and recreational resources are located within the non-residential study area. These open spaces include publicly owned open spaces and privately owned spaces that are required to be open to the public (e.g., zoning bonus plazas). Altogether, the open space resources in the study area total just over 18 acres (see Figure 5-2 and Table 5-5). They consist of a mix of small plazas with landscaping and seating, city playgrounds, community gardens, larger city parks with a mix of passive and active recreational facilities, and bikeways/walkways. Some of the nearby and more prominent open spaces are described below.



-  Project Site
-  1/2-Mile Perimeter
-  1/4-Mile Perimeter
-  1/2-Mile Study Area Boundary
-  1/4-Mile Study Area Boundary
-  Open Space Resource
(See Table 5-3 for Reference Numbers)

Figure 5-2
Open Space Resources

Fordham University Lincoln Center Master Plan EIS

**Table 5-5
Open Space Inventory**

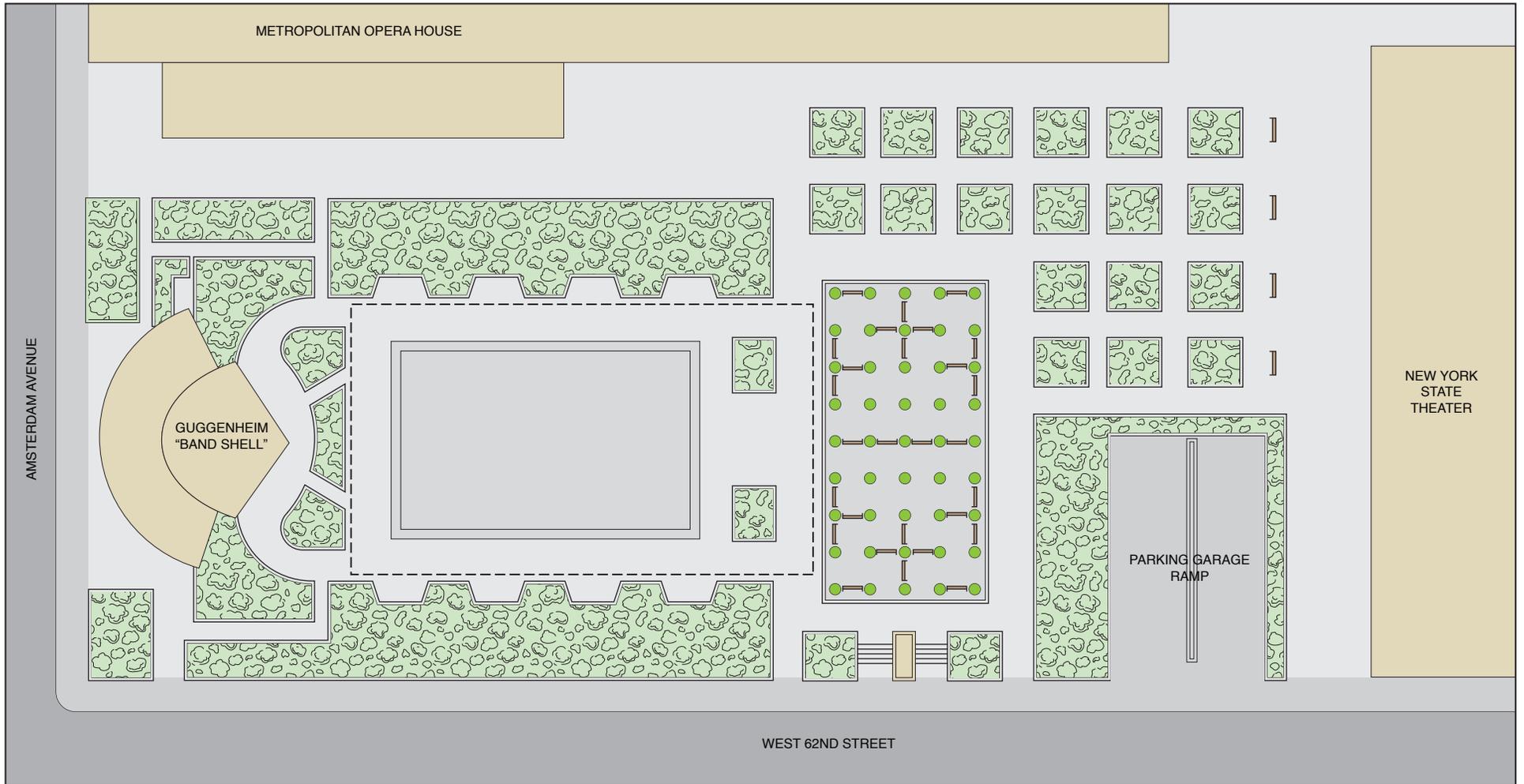
Map Ref.	Name / Address	Owner / Agency	Features	Active Acres	Passive Acres	Condition/ Utilization
1	Richard Tucker Park	DPR	Seatings, plantings	0.00	0.05	Good/ High
2	Damrosch Park	DPR	Bandshell, plantings, seating	0.00	2.40	Good/ High
3	Lincoln Center Plaza	DPR	Seating, fountain, sculpture	0.00	3.80	Good/ Moderate
4	Dante Park	DPR	Seating, plantings, statue	0.00	0.14	Good/ High
5	One Lincoln Plaza	John Amodeo	Garden, seating	0.00	0.10	Good/ Low
6	30 W 63rd St Plaza	S&P Associates	Trees, grass, seating, planters, fountain	0.00	0.40	Excellent/Moderate
7	Harmony Atrium	Lincoln Center	Climbing wall, indoor seating, piano	0.10	0.20	Fair/ Moderate
8	The Regent - 28 Columbus Ave, 345 W 60th St	Glenwood Management Company	Seating, plantings	0.00	0.20	Good/ Moderate
9	The Beaumont 30 W 61st St	Carlos E. Diaz Flores	Seating, plantings	0.00	0.20	Good/Low
10	Dale F. Frey Plaza	Trump International Hotel & Tower	Sculpture, benches, trees	0.00	0.20	Good/ Moderate
11	Columbus Circle	DPR	Statue, benches, fountain	0.00	0.20	Good/ High
12	W 59th St Recreation Center	DPR	Indoor and outdoor pools, multi-use gym, paved outdoor area	0.50	0.00	Poor/High
13	Concerto Public Plaza - 59th St between Amsterdam and West End Aves	Columbus/ Amsterdam Associates	Benches, trees, play equipment, spray shower, lawn	0.00	0.05	Excellent/Moderate
14	St. Luke's-Roosevelt Hospital Entrance Plaza	St. Luke's/ Roosevelt Hospital	Trees, planters, benches, flowers	0.00	0.08	Excellent/Moderate
15	Balsley Park	Rose 29 LLC	Gardens, lawn, toddler play area, food kiosk, seating	0.10	0.20	Excellent/High
16	330 W 56th St	Berkley Associates	Concrete seating, trees, planters	0.00	0.06	Fair/Low
17	Parc Vendome/ Sheffield Plazas (322/350 W 57th St.)	Southcroft Company	Seating, plantings	0.00	0.50	Good/High
18	Central Park (portion within ¼-mile of project site)	DPR	Trees, walking paths, benches, jogging and bicycling routes	2.65	6.20	Excellent/High
Non-Residential Study Area Total				3.35	14.98	
Residential Study Area						
19	Septuagesimo Umo	DPR	Garden, seating	0.00	0.04	Good/ Moderate
20	P.S. 199 Playground (Playground 70), W 70th St between West End and Amsterdam Aves	DPR	Fountain, comfort station, basketball courts, handball courts, play equipment with safety surfacing, a small garden, and benches.	1.27	0.10	Excellent/High
21	Broadway Malls	DPR	Benches in Broadway Median, planters	0.00	0.10	Good/Low
22	145 W 67th St (Tower 67)	Amsterco	Plantings, seating, fountain, trees	0.00	0.40	Good/ Moderate
23	Riverside Park South	DPR	Soccer, handball courts, basketball courts, fishing pier, esplanade, bikeway, playground, spray shower	2.5	10.43	Excellent/High
24	Martin Luther King Jr. High School	DOE	Seating, planters, sculpture	0.00	1.00	Fair/High
25	James Felt Plaza	NYCHA	Seating, plantings	0.00	0.10	Fair/Low
26	Amsterdam Houses Playground/Samuel N. Bennerson Playground	DPR	Playground, basketball courts, plantings, seating	0.50	0.30	Good/High

Table 5-5 (cont'd)
Open Space Inventory

Map Ref.	Name / Address	Owner / Agency	Features	Active Acres	Passive Acres	Condition/ Utilization
Residential Study Area (continued)						
<u>27</u>	West End Towers Park	West End Towers	Animal art, lighting, lawns, playgrounds, benches, trees and plantings	1.20	0.50	Excellent/High
<u>28</u>	Amsterdam Houses Open Space	NYCHA	Seating, plantings, playground	1.20	1.30	Good/High
<u>29</u>	555 W 57th St	555 W 57th St Associates	Seating, plantings, walkways	0.00	0.50	Good/ Moderate
<u>30</u>	Amsterdam Plaza at Harborview Terrace	NYCHA	Planting, seating, playgrounds, paved sports courts	0.80	1.30	Poor/Low
<u>31</u>	De Witt Clinton Park	DPR	Lighted ball fields, basketball courts, benches, plantings and trees	4.70	1.13	Good/High
<u>32</u>	Clinton Towers Plaza/790 Eleventh Ave	P&L Management & Consulting	Trees, benches, plantings, children's basketball court, slides	0.10	0.30	Poor/Low
<u>33</u>	Harborview Terrace Plaza/530 W 55th St	HPD	Seating, plantings, flowers	0.00	0.10	Poor/Low
<u>34</u>	P.S. 111 Playground	DOE	Playground, basketball courts, paved ball field	0.70	0.10	Good/ Moderate
<u>35</u>	Route 9A	DOT	Bikeway, walkway	0.40	0.30	Good/High
<u>36</u>	Symphony Plaza 1755 Broadway	Broadway and 56th St Associates	Seating, plantings, café space	0.00	0.10	Good/High
<u>37</u>	218 W 57th St / 888 Seventh Ave	200 W 57th St Associates	Trees, shrubs, seating, lighting	0.00	0.13	Good/ Moderate
<u>38</u>	211 W 56th St	211 W56th St Associates	Planters, lights, seating	0.00	0.11	Good/Low
<u>39</u>	888 Seventh Ave	Paramount Group	Benches, trees	0.00	0.34	Good/Low
<u>40</u>	Le Parker Meridien Hotel	Le Parker Meridien Hotel	Seating, access between 56th and 57th Street	0.00	0.23	Good/High
<u>41</u>	Fisher Park/Alliance 1345 Sixth Ave	Fisher Park/Alliance	Fountains, trees, seating areas	0.00	0.28	Good/ Moderate
<u>42</u>	Central Park (portion within ½-mile [but outside of ¼-mile] of project site)	DPR	Trees, lawns, walking paths, benches, ballfield, jogging and bicycling routes	41.30	41.35	Excellent/High
<u>43</u>	Clinton Towers Street Seating	Clinton Towers	Seating	0.00	0.06	Fair/ Moderate
<u>44</u>	Freedom Place and 67th Street	EQR - 160 Riverside Blvd	Seating and plantings	0.00	0.03	Excellent/Low
Residential Study Area Total				58.02	75.61	
Note:	See Figure 5-2					
Sources:	New York City Department of Parks and Recreation (DPR) open space data base; New York City Housing Preservation and Development (HPD); New York City Housing Authority (NYCHA); New York City Department of Education (DOE); Department of Transportation (DOT); AKRF, Inc. field surveys, December 1999, October and November 2002, December 2004, and October 2007.					

Damrosch Park

Damrosch Park, immediately north of the Fordham campus is part of Lincoln Center for the Performing Arts. As shown in Figures 5-3 and 5-4, it is a 2.4-acre passive open space that has trees, plantings, benches, and a band shell, but no lawns. The western portion of the park is dominated by the Guggenheim Bandshell, which faces into the park along the Amsterdam Avenue side. East of the bandshell is a paved, open viewing area that is flanked to the north and south by banks of trees and shrubs. The eastern half of the park includes a glade of trees with numerous benches, as well as a series of trees set in square raised planters that also function as seating. There is also a planted area that serves to buffer the park from an entrance to an underground parking area.



----- Approximate boundary of area occupied by tents

 Planted area and trees

 Seating

 Tree



The park is a popular area for passive recreation and in the summer is heavily programmed with outdoor music and dance performances. From June through August, the park hosts Lincoln Center programming such as Lincoln Center Out of Doors, Midsummer Night Swing, and the Lincoln Center Festival. For much of the year the paved western portion of the park is actually occupied by a tent in which private events take place including art shows, dinners, and other entertainment (see Figure 5-5). From mid-October to the end of January it is home to the Big Apple Circus, which erects a tent. Starting in 2010, Fashion Week will be hosted in Damrosch Park in both February and September. It is also used for other events which require tents that cover most if not all of the open space and limit access. These other tented activities occur from March until the end of May and during September.

Lincoln Center Plaza

The 3.8-acre plaza between the theaters at Lincoln Center is a major open space and gathering place. It has a fountain, a reflecting pool with sculptures, and ledges for sitting. In the summer, outdoor music performances are held here. DPR recently completed a renovation of the Guggenheim bandshell in the plaza. The north part of the plaza between Avery Fisher Hall and the Vivian Beaumont and Mitzi Newhouse theaters is not as heavily used as the main part of the plaza. It is nicely landscaped and occupied by benches and modern sculpture. Lincoln Center began construction in March 2006 on a major transformation initiative that will renovate its campus and publicly accessible open spaces.

West 59th Street Recreation Center

This facility, on West 59th Street between Amsterdam and West End Avenues, is entirely an active recreation space with a multi-use gymnasium, indoor sports courts, an indoor pool, an outdoor pool, and an outdoor water fountain for children. The outdoor facilities, particularly the pool, are in poor condition and not open to the public at this time.

Central Park

A small portion of the southwestern corner of the 843-acre park is located within ¼-mile of the Fordham campus. Located mostly along Central Park West, this portion of the park contains Merchants Gate, several statues, a paved bikeway/running loop, as well as wooded areas.

RESIDENTIAL STUDY AREA

Within the residential study area, 44 publicly accessible open spaces and recreational facilities serve the surrounding residential and commercial populations. Public open spaces with no useable public amenities were not included in the study area inventory. Including all of the public parks and open spaces listed in the non-residential study area, the residential study area contains a total of approximately 134 acres of publicly accessible open space. The open spaces within this study area consist of a mix of small plazas with landscaping and seating, city playgrounds, community gardens, larger city parks with a mix of passive and active recreational facilities, and bikeways/walkways. Some of the more prominent open spaces are described below.

Amsterdam Houses

The Amsterdam Houses complex has some facilities that are open to the public and some that are for tenant use only. The 0.8-acre Amsterdam Houses playground contains a variety of active and passive spaces operated by DPR. Amsterdam Houses has an additional 2.5 acres of open



space (operated by the New York City Housing Authority [NYCHA]), including landscaped walkways and a separate young children's playground.

Amsterdam Plaza at Harborview Terrace

This 2.1-acre plaza is located in the Harborview Terrace housing project between West 55th and West 56th Streets and Tenth and Eleventh Avenues. The plaza contains a large paved court for basketball with tables and benches. Other facilities include a children's playground with play equipment. More benches and planters are located closer to the entrance of the building.

De Witt Clinton Park

This 5.8-acre park occupies two blocks between West 52nd and 54th Streets from Eleventh Avenue to Twelfth Avenue in an area dominated by auto-related uses in West Clinton. Although it has benches and plantings that make it suitable for passive recreation, most of the park is occupied by facilities for active recreation, including ball fields, basketball courts, handball courts, and a playground. The ballfields, which have lights and bleachers, are the most heavily used facilities. The Erie Canal playground has been renovated with climbing rocks and colorful play equipment, including a jungle gym and swings.

Riverside Park South

Approximately 13 acres of open space affiliated with Phases I through IV, and a playground associated with Phase V, of the Riverside South development between West 59th and 72nd Streets along the Hudson River have been completed. This mapped parkland contains soccer fields, baseball fields, handball courts, playground equipment, a pier, and an esplanade. A restored 1940s "Alco S-1 Switcher" locomotive, a reminder of the area's past as a rail yard decorates a playground. The pier extends into the Hudson River at approximately West 70th Street and can be used for fishing, sunbathing or other pedestrian-oriented activities. The approximately 20-foot-wide esplanade runs along the entire length of the development and connects to the existing esplanade at Riverside Park to the north and connects to the Hudson River Park esplanade to the south.

West End Towers Open Space

This open space is located on West End Avenue between West 63rd and West 64th Streets near the West End Towers residential buildings. The space overlooks the large expanse of Penn Yards, and in the future will overlook the Riverside South Waterfront Park. Oriented toward active use, with children's play equipment and courts, this open space also includes attractive landscaping and topography, walking paths, lawns, trees, sculptures, and playgrounds.

Central Park

The southwestern corner of the 843-acre park is located within ½-mile of the project site. In addition to several statues and Merchants Gate, this portion of the park contains several statues, a paved bikeway/running loop, softball fields, Sheep Meadow, and Tavern on the Green.

QUALITATIVE CONSIDERATIONS

In addition to all the publicly accessible open spaces in the area, Fordham allows the public to use the plaza on the podium in the heart of its campus. This plaza contains lawn, seating, lighting, and monumental sculptures. Pedestrian access to the plaza is provided by a stair and elevator near the corner of Columbus Avenue and West 60th Street, and by a stair on the mid-block of West 62nd Street. This inviting passive space is well-maintained with lawns, trees, flowers, sculptures, and benches. The space functions as a campus green for Fordham students.

Fordham University Lincoln Center Master Plan EIS

Because of its location and its being open to the public at Fordham’s discretion, it is not included in the quantitative analysis. In addition, Fordham also has a small, landscaped garden in the midblock along West 62nd Street. While it is generally accessible to the public, it is not widely used. There are also tennis courts and a basketball court at the southwest corner of the campus. Although these facilities are made available to the public and local schools, they are not widely used except by Fordham students.

Several parks are located outside of the open space study area boundary, some within ½-mile of the project site. The remainder of the 843 acres of Central Park is accessible for active recreation such as jogging, biking or rollerblading, as well as passive activities. Hudson River Park and Riverside Park are also nearby. They are located south and north, respectively, of Riverside Park South along the waterfront on the west edge of the study area.

ADEQUACY OF OPEN SPACES

NON-RESIDENTIAL STUDY AREA

As described above, the analysis of the non-residential study area focuses on passive open spaces that may be used by workers or others coming to the area but not residing there. To assess the adequacy of the open spaces in the area, the ratio of workers to acres of open space is compared to DCP’s planning guideline of 0.15 acres of passive space per 1,000 workers. In addition, the passive open space ratio for both workers and residents in the area is compared with the recommended weighted average ratio.

The non-residential study area includes 18.33 acres of open space, of which 14.98 acres are passive space. It has a total of 22,393 residents and 37,925 people who work here or come here on a regular basis, including the students at Fordham University and at John Jay College of Criminal Justice as well as other major institutions in the area. The combined residential and non-residential population is 60,318.

Based on DCP guidelines, the area has a passive open space ratio of 0.39 acres of passive open space per 1,000 non-residents; this is more than double the DCP guideline of 0.15 acres (see Table 5-6). The combined passive open space ratio is 0.25 acres per 1,000 residents and workers, which is slightly lower than the recommended weighted average ratio of 0.28 acres per 1,000 residents and workers.

Table 5-6
Existing Conditions: Adequacy of Open Space Resources

	Population	Open Space Acreage			Open Space Ratios per 1,000 People			DCP Open Space Guidelines		
		Total	Active	Passive	Total	Active	Passive	Total	Active	Passive
Non-Residential Study Area										
Non-residents	37,925	<u>18.33</u>	<u>3.35</u>	<u>14.98</u>	N/A	N/A	<u>0.39</u>	N/A	N/A	0.15
<u>Total Population</u>	60,318				N/A	N/A	0.25	N/A	N/A	0.28*
Residential Study Area										
Residents	60,887	<u>133.63</u>	<u>58.02</u>	<u>75.61</u>	<u>2.19</u>	<u>0.95</u>	<u>1.24</u>	2.5	2.0	0.50
<u>Total Population</u>	162,587				N/A	N/A	<u>0.47</u>	N/A	N/A	0.28*
Notes:										
Non-residents typically use passive spaces; therefore, for the non-residential study area, only passive open space ratios are calculated. For the residential study area, active, passive, and total park space ratios are calculated.										
* Weighted average combining 0.15 acres per 1,000 non-residents and 0.50 acres per 1,000 residents.										

RESIDENTIAL STUDY AREA

With a total of 133.63 acres of open space, of which 58.02 are for active use and 75.61 are for passive use, and a total residential population of 60,887, the residential study area has an overall open space ratio of 2.19 acres per 1,000 residents. This is slightly less than DCP’s planning guideline of 2.5 acres of combined active and passive open space per 1,000 residents. However, it is substantially higher than the citywide community district median of 1.5 acres per 1,000 residents. While the area currently has a shortage of active open space, the active open space ratio is higher than many other areas and neighborhoods in Manhattan.

The residential study area’s residential passive open space ratio is 1.24 acres of passive open space per 1,000 residents, which exceeds DCP’s goal of 0.5 acres per 1,000 residents. The area’s residential active open space ratio is 0.95 acres per 1,000 residents, which is below DCP’s planning guideline of 2.0 acres per 1,000 residents.

When the employees who work within the residential study area are added to the population, the passive open space ratio is lower. As described earlier, workers typically use passive open spaces during the workday, so the passive open space ratio is the relevant ratio for consideration. With a worker and residential population of 162,587, the combined passive open space ratio in the residential study area is 0.47, higher than the recommended weighted average ratio of 0.28 acres per 1,000 residents and workers.

QUALITATIVE CONSIDERATION

In addition to the open spaces described above, there are also non-quantified destination open space resources nearby such as the remainder of Central Park, Hudson River Park and Riverside Park that extend beyond the boundary of the residential study area and provide additional active and passive open space resources. These parks are considered “destination parks,” and residents would typically travel farther than the ½-mile extent of the residential study area to enjoy the open space and recreational amenities within these parks. In general, the study area populations are comparatively well served by active open space resources.

E. THE FUTURE WITHOUT THE PROPOSED ACTION—2014

STUDY AREA POPULATION

Several new residential, community facility and commercial developments are currently planned and expected to be completed within the study areas by 2014, as discussed in Chapter 2, “Land Use, Zoning, and Public Policy.” These new developments would increase both the residential and non-residential populations within the study areas.

PROJECT SITE

Absent the proposed action, the northwest and southwest corners of the project site and the mid-block portion of the site along West 62nd Street will be developed as-of-right with three residential buildings containing a total of 876 apartments. Using the average household size of 1.62 from the 2000 Census, these buildings are expected to add 1,419 residents to both the non-residential and residential study areas.

NON-RESIDENTIAL STUDY AREA

As described in Chapter 2, “Land Use, Zoning, and Public Policy,” 10 projects have recently been constructed or are expected to be completed in the non-residential study area by 2014 in the future without the proposed action. The developments include the expansion of the John Jay College of Criminal Justice on Tenth Avenue between West 58th and 59th Streets, the Algin Development on West 60th and 61st Streets between West End and Amsterdam Avenues, the relocation of the Museum of Arts and Design to 2 Columbus Circle¹, the Lincoln Center Redevelopment, 2 West End Avenue, 15 Central Park West, Element Condominium at 555 West 59th Street, and the Empire Hotel. In combination with the as-of-right development on the Fordham campus, these projects are expected to add 3,295 residents and increase the worker/student (non-resident) population by 1,531. The 2014 combined residential and non-residential population in the non-residential study area is projected to be 65,144.

It is expected that within the non-residential study area, in the future without the proposed project in 2014, existing age demographics will continue to apply, with adults between 19 and 65 making up approximately 78.46 percent of the population, children under five 2.97 percent of the population, children from five to nine 1.62 percent of the population, children age ten to 14 1.27 percent of the population, 15 to 19 year olds 3.60 percent of the population, and persons 65 or older more than 12 percent of the population.

RESIDENTIAL STUDY AREA

Both the residential and worker populations within the residential study area are expected to increase by 2014. Several projects are expected to be completed by 2014, including a portion of Riverside South, the Red Cross site at 150 Amsterdam Avenue, and 770 Eleventh Avenue. With the additional residential growth expected to occur within the non-residential study area, the residential population in the residential study area for 2014 is estimated to be 71,130.

The number of new workers would also increase by 2014, due to employees in the residential condominiums as well as in the retail spaces and community facilities of these developments. By 2014, the total working population within the residential study area (including the new working population within the non-residential study area) is expected to increase to 108,363. Total residential and non-residential populations within this area are estimated to be 179,493 by 2014.

Within the residential study area, existing age characteristics are expected to continue, with adults over the age of 19 and under the age of 65 making up approximately 74.77 percent of the population. Children under five will make up 3.50 percent of the population, children from five to nine 2.39 percent of the population, ages ten to 14 2.14 percent of the population, and older teens approximately 2.81 percent of the population. Residents 65 or older will be 14.38 percent of the non-residential study area population.

¹ As noted in Chapter 2, “Land Use, Zoning, and Public Policy,” the Museum of Arts and Design project was recently completed and occupied. However, given that it is a recently completed project, the new worker population is not captured in the current census numbers. Therefore, the new worker population is included in the future without the proposed action analysis.

STUDY AREA OPEN SPACES

NON-RESIDENTIAL STUDY AREA

Immediately north of the project site, the Lincoln Center for the Performing Arts is undergoing a major redevelopment. Alice Tully Hall/Julliard Plaza is currently under construction and closed to the public, but is expected to be renovated and reopened by 2009. The plaza, located at West 65th Street and Broadway, will have passive space with a public grandstand and an interactive Lincoln Center information kiosk. The massive pedestrian bridge over West 65th Street has already been removed. The North Plaza will be improved with a restaurant along 65th Street that has a green roof—a usable lawn area. The North Plaza reflecting pool will be lengthened and to the south of the reflecting pool there will be a new grove of pruned trees with perimeter benches and moveable seating among the trees. The service road along Columbus Avenue will be depressed to go under a widened, grand stair from Josie Robertson Plaza to the level of the Columbus Avenue sidewalk. Trees will be planted on either side of the roadway to the north and south of the grand stair. On the north and south ends of the stair there will be glass-covered ramps that lead directly to the arcades at the Koch Theater and Avery Fisher Hall. Benches will be provided just north of West 62nd Street. The trees in this area will be Quaking Aspen, Honey Locust, Dawn Redwood, and Sweet Gum. Renovation of the pavement of Josie Robertson Plaza will be completed, and its fountain will be enhanced with new lighting and seating. Across Columbus Avenue, Harmony Atrium will also be completely renovated to become a new gateway to Lincoln Center from Broadway. The renovated atrium will feature walls of plants, falling water, and seating as well as places to buy food and tickets to Lincoln Center events. The ceiling of the atrium is designed to continue outside the building and be cantilevered over the sidewalk to create entrance canopies. It will feature round openings lighted from above. Most of the planned Lincoln Center work will represent a significant improvement in the condition and quality of open spaces, but will altogether add only a small amount of new open space to the quantitative inventory. Key project components, such as the rebuilding of Josie Robertson Plaza and the renovation of Harmony Atrium, would affect existing open space and would not add new open space. Other parts of the redevelopment, such as the new restaurant/green roof on West 65th Street and the creation of sitting areas along Columbus Avenue, would offset the removal of the Milstein Plaza/bridge over 65th Street. In general, the improvements to the Lincoln Center open spaces greatly enhance their usability and attractiveness.

Other projects will also improve open spaces in the non-residential study area. DPR has plans to renovate portions of the West 59th Street Recreation Center. The 59th Street Recreation Center may undergo improvements by 2014 that could include a new multi-purpose room and expansion over the site of the existing outdoor pool. The improvements are anticipated to begin in 2009 with completion expected within 18 months. However, for the purposes of a conservative analysis, no additional acreage was considered.

Overall, by 2014 additional open space will modestly increase the passive open space in the non-residential study area to 15.08 acres and the total open space to 18.43 acres.

RESIDENTIAL STUDY AREA

The remainder of the Riverside South project open space, Phases V through VII, is expected to be complete in the future without the proposed action (2014). The proposed Riverside South open space plan calls for approximately 22.5 acres of publicly accessible open space and recreational facilities, with two major elements: a large-scale waterfront park and a system of

landscaped pedestrian streets and open spaces, focused on Freedom Place and Freedom Place South, linking the parks to the city street grid. As noted above, Phases I through IV and a portion of V have been completed thus far, resulting in 12.93 acres of open space.

The total amount of new open space to be developed by 2014, Phases V through VII, is 9.58 acres. It is anticipated that these 9.58 acres will consist of 3.27 acres of active space and 6.31 acres of passive open space between West 59th Street and West 64th Street (a portion of this contiguous open space falls outside the open space study area boundary; nevertheless, the entire open space is counted in the quantitative open space analysis, since it functions as one open space). The space will consist largely of lawn areas and pathways.

The total open space in the residential study area will increase to 143.31 acres by 2014. Passive and active open space will increase to 82.02 and 61.29 acres, respectively.

ADEQUACY OF OPEN SPACES

By 2014 without the proposed action, residential and non-residential populations in the study areas would increase, as would the supply of open space.

NON-RESIDENTIAL STUDY AREA

By 2014 without the proposed action, the number of non-residents in the non-residential study area is expected to increase to 39,456 and the passive open space is expected to increase slightly to 15.08 acres. In 2014, while the ratio of passive open space per 1,000 non-residents would decrease from 0.39 to 0.38 acres; this remains substantially higher than the city’s guideline of 0.15 acres (see Table 5-7). For the combined residential and non-residential population, the passive open space ratio would decline from 0.25 to 0.23 acres per 1,000 people, which is slightly lower than the recommended weighted average ratio of 0.29 acres per 1,000 residents and workers.

Table 5-7
2014 Future Without the Proposed Action: Adequacy of Open Space Resources

	Population	Open Space Acreage			Open Space Ratios per 1,000 People			DCP Open Space Guidelines		
		Total	Active	Passive	Total	Active	Passive	Total	Active	Passive
Non-Residential Study Area										
Non-residents	39,456	<u>18.43</u>	<u>3.35</u>	<u>15.08</u>	N/A	N/A	<u>0.38</u>	N/A	N/A	0.15
<u>Total population</u>	65,144				N/A	N/A	0.23	N/A	N/A	0.29*
Residential Study Area										
Residents	<u>71,130</u>	<u>143.31</u>	<u>61.29</u>	<u>82.02</u>	<u>2.01</u>	<u>0.86</u>	<u>1.15</u>	2.5	2.0	0.50
<u>Total population</u>	<u>179,493</u>				N/A	N/A	<u>0.46</u>	N/A	N/A	0.29*
Notes:										
Non-residents typically use passive spaces; therefore, for the non-residential study area, only passive open space ratios are calculated. For the residential study area, active, passive, and total park space ratios are calculated.										
* Weighted average combining 0.15 acres per 1,000 non-residents and 0.50 acres per 1,000 residents.										

RESIDENTIAL STUDY AREA

Both passive open space and population are expected to increase in the residential study area in the future without the proposed action. The combined residential and non-residential passive open space ratio within the residential study area is expected to decrease from 0.47 to 0.46 acres per 1,000 residents and non-residents, which is higher than the recommended weighted average ratio of 0.29 acres per 1,000 residents and workers. The active open space ratio will decrease from 0.95

to 0.86 acres per 1,000 residents, which is less than the city’s planning guideline of 2.0 acres per 1,000 residents. The residential population will remain underserved by active open space resources in the 2014 without the proposed action. The total open space ratio will also decrease, from 2.19 to 2.01 acres per 1,000 residents. However, the active and total open space ratios are higher than many other areas and neighborhoods in Manhattan.

QUALITATIVE CONSIDERATIONS

The development of three as-of-right residential buildings on the Fordham campus will remove the garden mid-block along West 62nd Street and the basketball and tennis courts on the southwest corner of the campus. The open space on the podium will continue to function as it does today. Although not considered in the quantitative analysis, this loss of open space will reduce the active and passive recreational opportunities available to the Fordham students, faculty, and staff.

As described above, nearby “destination parks” such as Central Park, Riverside Park, and Hudson River Park are available to study area residents and will continue to help alleviate the active open space deficiency.

F. PROBABLE IMPACTS OF THE PROPOSED ACTION—2014

STUDY AREA POPULATION

The proposed action would introduce new student (including dormitory residents) and faculty/staff populations to the study area by 2014. As described in Chapter 1, “Project Description,” the initial phase of construction would result in new academic and dormitory facilities, including 695 dormitory beds. The as-of-right residential development of three towers with 876 units would be replaced by two towers with 876 units that would be located at the northwest and southwest corners of the campus.

NON-RESIDENTIAL STUDY AREA

By 2014, Fordham’s enrollment is expected to grow from 7,962 to 9,509, and its faculty and staff are expected to grow from 1,273 to 1,521. In total, a net increase in the daytime population of 1,795 would be introduced to the study area as a result of the proposed action. The total daytime population (including students, faculty, and staff) in the non-residential study area would reach 41,251.

Student housing in the first phase of the Master Plan is anticipated to accommodate 695 students (residents) by 2014, increasing the total number of residents within the study area to 26,383. Including both the residential and non-residential populations, it is expected that the total daily user population would reach 67,634 by 2014. Although this analysis conservatively assumes that residents and employees are separate populations, it is likely that many of the students housed at the new 695-bed dormitory would also be present on campus during the day. As a result, there is likely some double-counting of the daily user population in which residential and non-residential populations overlap, resulting in a more conservative analysis.

RESIDENTIAL STUDY AREA

As discussed above, the number of residents and non-residents in the residential study area is expected to increase. The number of residents is expected to grow to 71,825 and the number of non-residents is expected to reach 110,158, resulting in a total user population of 181,983 by 2014.

STUDY AREA OPEN SPACES

NON-RESIDENTIAL STUDY AREA

No additional changes to open space acreage in the non-residential study area are anticipated as a result of the proposed action by 2014. Therefore, the total amount of open space would remain unchanged at 18.43 acres.

RESIDENTIAL STUDY AREA

No changes to open space acreage in the residential study area are anticipated as a result of the proposed action by 2014. Therefore, the total amount of open space would remain unchanged at 143.31 acres.

QUALITATIVE DISCUSSION

As discussed above, the initial phase of construction would result in new academic and dormitory facilities. When compared with the future without the proposed action, the project site would experience a decrease in campus open space. This construction would displace the mid-block garden on West 62nd Street, the basketball and tennis courts on the southwest corner of the campus, and the empty parcel on the northwest corner of the campus. However, Fordham would create a publicly accessible interim street-level plaza along Columbus Avenue between West 60th Street and West 61st Street. The landscaped plaza would be replacing the existing gravel parking lot and would contain decorative paving, landscaping including trees and shrubs, seating, and a snack kiosk. Fordham has also worked with DCP to create an interim stair between the new Law School building and the existing Law School building (see Figure 8-20). The stair would have landscaped areas and seating, and would rise in gentle increments to connect the West 62nd Street sidewalk to the podium-level plaza making the plaza more attractive and visible to a larger number of users.

In addition, Fordham anticipates providing a number of sports and recreational facilities as part of the proposed plan. Although the plans have not been finalized, the student center on site 3/3a is expected to include a gym, pool and exercise facility. These facilities would be available to Fordham University students and staff. Furthermore, Fordham would continue to make these facilities available to organized neighborhood groups on a scheduled basis, as it does currently.

ADEQUACY OF OPEN SPACES

NON-RESIDENTIAL STUDY AREA

The combined passive open space ratio would decrease from 0.23 to 0.22 acres per 1,000 workers and residents in the future with the proposed action (see Table 5-8). While this ratio would be slightly lower than the recommended weighted average ratio of 0.29 acres per 1,000 residents and workers, this change would represent a small decrease in the open space ratio (see Table 5-9). The passive open space ratio would decrease from 0.38 to 0.37 acres per 1,000 non-residents when compared with the future without the proposed action. However, this ratio would continue to be higher than the DCP recommended ratio of 0.15 acres per 1,000 workers.

**Table 5-8
2014 Future With the Proposed Action: Adequacy of Open Space Resources**

	Population	Open Space Acreage			Open Space Ratios per 1,000 People			DCP Open Space Guidelines		
		Total	Active	Passive	Total	Active	Passive	Total	Active	Passive
Non-Residential Study Area										
Non-residents	41,251	<u>18.43</u>	<u>3.35</u>	<u>15.08</u>	N/A	N/A	0.37	N/A	N/A	0.15
Total population	67,634				N/A	N/A	0.22	N/A	N/A	0.29*
Residential Study Area										
Residents	<u>71,825</u>	<u>143.31</u>	<u>61.29</u>	<u>82.02</u>	<u>2.00</u>	<u>0.85</u>	<u>1.14</u>	2.5	2.0	0.50
Total population	<u>181,983</u>				N/A	N/A	0.45	N/A	N/A	0.29*
Notes: Non-residents typically use passive spaces; therefore, for the non-residential study area, only passive open space ratios are calculated. For the residential study area, active, passive, and total park space ratios are calculated. * Weighted average combining 0.15 acres per 1,000 non-residents and 0.50 acres per 1,000 residents.										

**Table 5-9
2014 Future With the Proposed Action: Open Space Ratios Summary**

Ratio	DCP Guideline	Existing Ratio	Future Without the Proposed Action Ratio	Future with the Proposed Action Ratio	Percent Change Future Without to Future With the Proposed Action Ratio
Non-Residential Study Area					
Passive/non-residents	0.15	<u>0.39</u>	<u>0.38</u>	0.37	<u>-4.35</u>
Passive/total population	<u>0.28/0.29/0.29*</u>	0.25	0.23	<u>0.22</u>	<u>-3.68</u>
Residential Study Area					
Total/residents	2.5	<u>2.19</u>	<u>2.01</u>	2.00	<u>-0.97</u>
Passive/residents	0.5	<u>1.24</u>	<u>1.15</u>	<u>1.14</u>	<u>-0.97</u>
Active/residents	2.0	<u>0.95</u>	<u>0.86</u>	<u>0.85</u>	<u>-0.97</u>
Passive/total population	<u>0.28/0.29/0.29*</u>	<u>0.47</u>	0.46	0.45	<u>-1.37</u>
Notes: Non-residents typically use passive spaces; therefore, for the non-residential study area, only passive open space ratios are calculated. For the residential study area, active, passive, and total park space ratios are calculated. * Weighted average combining 0.15 acres per 1,000 non-residents and 0.50 acres per 1,000 residents.					

RESIDENTIAL STUDY AREA

With the proposed action, the active open space ratio within the residential study area would decrease slightly from 0.86 to 0.85 acres per 1,000 residents. The passive open space ratio for the combined population would decrease slightly, from 0.46 to 0.45 acres per 1,000 residents and workers. Nonetheless, this ratio would be substantially higher than the recommended weighted average ratio of 0.29 acres per 1,000 residents and workers. The total open space ratio would decrease from 2.01 to 2.00 acres per 1,000 residents, but would remain higher than the citywide median of 1.5 acres per 1,000 residents.

IMPACT SIGNIFICANCE

QUANTITATIVE DISCUSSION

Non-Residential Study Area

In the future with the proposed action, the passive ratio for non-residents in the non-residential study area by approximately 4 percent, but would be above the level recommended by DCP. The passive ratio for the total population in the non-residential study area would decrease from 0.23 to 0.22 acres per 1,000 residents and workers and would continue to be below the recommended weighted average ratio of 0.29 acres per 1,000 residents and workers. However, this represents less than a four percent change and would not be considered substantial. Therefore, no substantial change to the open space ratios would occur and the proposed actions would not result in a significant adverse open space impact.

Residential Study Area

In the residential study area, both passive open space ratios would exceed DCP recommendations, while the active ratio and total open space ratios would continue to fall short of DCP recommendations. However, it is recognized that these recommendations are not feasible for many areas of the city, and they are not considered impact thresholds. Moreover, with the proposed project the ratios would decrease by no more than 0.01 acres per 1,000 people. Finally, the passive, active, and total open space ratio for residents would decrease by less than 1 percent. The passive open space ratio for the total population would decrease by less than 2 percent. These decreases are not considered substantial, and no significant adverse open space impacts would occur in the residential study area by 2014 as a result of the proposed action.

QUALITATIVE CONSIDERATIONS

While the proposed action would add to the population of the area it would also provide active recreation facilities, that would potentially include a gym, pool, and exercise facility for those students, faculty, and staff on the Fordham campus. Because these facilities would not generally be open to the public, they are not counted in the quantitative analysis (Fordham would continue to make these facilities available to organized neighborhood groups on a scheduled basis, as it does currently.). Nevertheless their availability would reduce the demands that the new Fordham population would put on publicly accessible open space in the study area. In addition, Fordham would be creating a publicly accessible interim street-level plaza along Columbus Avenue between West 60th Street and West 61st Street. Designed in consultation with DCP, this plaza would be open to the public. In fair weather, beverages and light snacks would be sold from a kiosk, and tables and chairs would be provided on the plaza.

In considering the significance of the projected decline in the open space ratios with the proposed action, it is also important to note that there are several destination open spaces just outside of the study area, such as Hudson River Park, Riverside Park, and the remainder of Central Park. These resources would continue to alleviate any shortfall in open space resources. In addition, private open space and recreational facilities—such as the YMCA at West 63rd Street and Central Park West—would continue to provide fitness and exercise opportunities for those in the area.

G. THE FUTURE WITHOUT THE PROPOSED ACTION—2032

STUDY AREA POPULATION

PROJECT SITE

The three as-of-right residential buildings constructed prior to 2014 are assumed to be fully occupied by 2032. As discussed above, these 876 apartments are expected to add 1,419 residents to both the non-residential and residential study areas. No further land use changes are anticipated on the project site without the proposed action.

NON-RESIDENTIAL STUDY AREA

There are no further development projects identified for completion in the non-residential study area by 2032. However, this analysis conservatively assumes that the population in the study area will continue to grow at 0.5 percent annually between 2014 and 2032, resulting in 2,413 new residents and 3,706 new workers by 2032. Therefore, the residential population in this area is estimated to be 28,101 in 2032, while the non-residential population will be an estimated 43,162. The 2032 combined residential and non-residential population in the study area is projected to be 71,263.

It is expected that within the non-residential study area, in the future without the proposed project in 2032, existing age trends will continue, with adults between 19 and 65 making up approximately 78.46 percent of the population, children under five 2.97 percent of the population, children from five to nine 1.62 percent of the population, children age ten to 14 1.27 percent of the population, 15 to 19 year olds 3.60 percent of the population, and persons 65 or older more than 12 percent of the population.

RESIDENTIAL STUDY AREA

One project, representing the final phase of development at the Riverside South development, may be completed by the 2032 analysis year.¹ No additional projects have been identified for completion within the residential study area (outside the non-residential study area) between 2015 and 2032. However, as described above, this analysis conservatively assumes that the population in the study area will continue to grow at 0.5 percent annually between 2014 and 2032. Considering both the full build out of Riverside South as well as background growth, 7,066 new residents and 9,848 new workers would be introduced to the residential study area by 2032. Therefore, it is estimated that there will be 82,811 residents and 119,531 workers in the residential study area by 2032. The combined residential and non-residential population is projected to be 202,342.

Within the residential study area, existing age characteristics are expected to continue by 2032, with adults over the age of 19 and under the age of 65 making up approximately 74.77 percent of the population. Children under five will make up 3.50 percent of the population, children from five to nine 2.39 percent of the population, ages ten to 14 2.14 percent of the population, and older

¹ Based on information provided in the Riverside Center DEIS Draft Scope of Work (November, 2008). The project is a mixed-use development to be located at the southern end of the Riverside South development between West 59th and West 61st Streets. Although the project is not approved and is in the early stages of its environmental review, this analysis assumes that it will be completed by 2018, and will consist of approximately 2,500 residential units, 97,000 gsf of community facility use, 209,200 gsf of retail, 250 hotel rooms, and 168,050 gsf of automotive service use.

teens approximately 2.81 percent of the population. Residents 65 or older will be 14.38 percent of the non-residential study area population.

STUDY AREA OPEN SPACES

NON-RESIDENTIAL STUDY AREA

No additional changes to open space acreage in the study area have been identified that would occur between 2015 and 2032. Total open space acreage will remain 18.43 acres, with 3.35 acres of active space and 15.08 acres of passive space.

RESIDENTIAL STUDY AREA

The Riverside Center development is expected to incorporate 3.8 acres of passive open space into its design. No additional changes to open space acreage in the study area are expected to occur between 2015 and 2032. Therefore, the total open space acreage would increase to 147.11 acres, with 61.29 acres of active space and 85.82 acres of passive space.

ADEQUACY OF OPEN SPACES

By 2032 without the proposed action, residential and non-residential populations in the study areas are assumed to increase, while the supply of open space would remain constant in the non-residential study area, the passive open space would increase in the residential study area.

NON-RESIDENTIAL STUDY AREA

By 2032, the ratio of passive open space per 1,000 non-residents will decline from 0.38 acres in the 2014 future without the proposed action to 0.35 acres; this will remain higher than the city’s guideline of 0.15 acres (see Table 5-10). For the combined residential and non-residential population, the passive open space ratio will decrease from 0.23 to 0.21 acres 1,000 people, which will continue to be lower than the recommended weighted average ratio of 0.29 acres per 1,000 residents and workers.

Table 5-10

2032 Future Without the Proposed Action: Adequacy of Open Space Resources

	Population	Open Space Acreage			Open Space Ratios per 1,000 People			DCP Open Space Guidelines		
		Total	Active	Passive	Total	Active	Passive	Total	Active	Passive
Non-Residential Study Area										
Non-residents	43,162				N/A	N/A	0.35	N/A	N/A	0.15
Total population	71,263	<u>18.43</u>	<u>3.35</u>	<u>15.08</u>	N/A	N/A	0.21	N/A	N/A	0.29*
Residential Study Area										
Residents	<u>82,811</u>				<u>1.78</u>	<u>0.74</u>	<u>1.04</u>	2.5	2.0	0.50
Total population	<u>202,342</u>	<u>147.11</u>	<u>61.29</u>	<u>85.82</u>	N/A	N/A	0.42	N/A	N/A	0.29*
Note:										
Non-residents typically use passive spaces; therefore, for the non-residential study area, only passive open space ratios are calculated. For the residential study area, active, passive, and total park space ratios are calculated.										
* Weighted average combining 0.15 acres per 1,000 non-residents and 0.50 acres per 1,000 residents.										

RESIDENTIAL STUDY AREA

All residential study area open space ratios will be lower in the 2032 future without the proposed action compared to the 2014 future without the proposed action. The combined residential and non-residential passive open space ratio within the residential study area will decrease from 0.46 to

0.42 acres per 1,000 residents and non-residents, which is still higher than the recommended weighted average ratio of 0.29 acres per 1,000 residents and non-residents. The active open space ratio will decrease as well, from 0.86 to 0.74 acres per 1,000 residents, which is less than the city's planning guideline of 2.0 acres per 1,000 residents. The total residential open space ratio will fall from 2.01 to 1.78 acres per 1,000 residents, which is lower than DCP guidelines, but higher than the citywide median of 1.5 acres per 1,000 residents.

QUALITATIVE DISCUSSION

As discussed above in “The Future without the Proposed Action—2014” above, the three as-of-right residential buildings will displace open space areas on the Fordham campus. In addition, as described above, nearby “destination parks” such as Central Park, Riverside Park, and Hudson River Park are available to study area residents and will help to alleviate the active open space deficiency.

H. PROBABLE IMPACTS OF THE PROPOSED ACTION—2032

STUDY AREA POPULATION

As described in Chapter 1, “Project Description,” complete implementation of the Master Plan would introduce new student (including dormitory residents) and faculty/staff populations to the study area. For purposes of analysis it is assumed that by 2032, the full Master Plan would be developed, including approximately 1.2 million square feet of new academic space, dormitory facilities for approximately 1,450 students, and below-grade parking garages.

NON-RESIDENTIAL STUDY AREA

By 2032, Fordham's enrollment is expected to grow from 7,962 in existing conditions to 11,220, and its faculty and staff are expected to grow from 1,273 in existing conditions to 1,795. In total, a net increase in the daytime population of 3,780 would be introduced to the study area as a result of the proposed action. The total daytime population (including students, faculty, and staff) in the non-residential study area would reach 46,942.

The student housing component of the Master Plan is anticipated to accommodate 1,450 students (residents) by 2032, increasing the total number of residents within the study area to 29,551. Including both the residential and non-residential populations, it is expected that the total daily user population would reach 76,493 by 2032. Although this analysis conservatively assumes that residents and employees are separate populations, many of the students housed at the new dormitories would also be present on campus during the day. As a result, there is likely some double-counting of the daily user population in which residential and non-residential populations would overlap, resulting in a more conservative analysis.

RESIDENTIAL STUDY AREA

As discussed above, the number of residents (students living in the proposed dormitories) and non-residents in the residential study area are expected to increase. The total user population within the residential study area is expected to reach 207,572 by 2032, with 84,261 residents and 123,311 non-residents.

STUDY AREA OPEN SPACES

PROJECT SITE

As discussed above, full development of the Master Plan would displace several of Fordham's private recreational facilities, including the mid-block garden on West 62nd Street, the basketball and tennis courts on the southwest corner of the campus. However, the Master Plan would also provide a central open space that would be more useable, better configured, and more easily accessible to the public than the existing open space on the podium. Along 62nd Street, there would be a 77-foot space between the buildings of the Law School and the Graduate School of Education. This space would include a stairway entrance to the campus that would include greenery along its west side, as well as seating. Similarly, there would be a wide stairway leading from Columbus Avenue to the campus level that would include seating and greenery.

NON-RESIDENTIAL STUDY AREA

No changes to open space acreage in the non-residential study area are anticipated as a result of the proposed action by 2032. Therefore, the total amount of open space would remain unchanged at 18.43 acres.

RESIDENTIAL STUDY AREA

No additional changes to open space acreage in the residential study area are anticipated as a result of the proposed action by 2032. Therefore, the total amount of open space would remain unchanged at 147.11 acres.

ADEQUACY OF OPEN SPACES

NON-RESIDENTIAL STUDY AREA

The combined passive open space ratio would decrease from 0.21 acres per 1,000 workers and residents in the future without the proposed action to 0.20 acres with the proposed action (see Table 5-11). This change would represent a decrease (6.84 percent) in the open space ratio and would be lower than the recommended weighted average ratio of 0.29 acres per 1,000 residents and workers (see Table 5-12). The passive open space ratio would decrease from 0.35 to 0.32 acres per 1,000 non-residents (8.05 percent decrease) when compared with the future without the proposed action. However, this ratio would continue to be appreciably higher than the DCP recommended ratio of 0.15 acres per 1,000 workers.

RESIDENTIAL STUDY AREA

As a result of the proposed action, the active open space ratio within the residential study area would decrease slightly (about 1.72 percent) from 0.74 to 0.73 acres per 1,000 residents. This would continue to be below the DCP guideline. The passive open space ratio for the combined population would also decrease minimally (about 2.52 percent), from 0.42 to 0.41 acres per 1,000 residents and workers. This ratio would be well-above than the recommended weighted average ratio of 0.29 acres per 1,000 residents and workers. The total open space ratio for residents would decrease from 1.78 to 1.75 acres per 1,000 residents. While lower than the city's guideline of 2.0 acres, it would remain higher than the citywide median of 1.5 acres per 1,000 residents.

Table 5-11
2032 Future With the Proposed Action: Adequacy of Open Space Resources

	Population	Open Space Acreage			Open Space Ratios per 1,000 People			DCP Open Space Guidelines		
		Total	Active	Passive	Total	Active	Passive	Total	Active	Passive
Non-Residential Study Area										
Non-residents	46,942	<u>18.43</u>	<u>3.35</u>	<u>15.08</u>	N/A	N/A	<u>0.32</u>	N/A	N/A	0.15
Total population	76,493				N/A	N/A	0.20	N/A	N/A	0.29*
Residential Study Area										
Residents	<u>84,261</u>	<u>147.11</u>	<u>61.29</u>	<u>85.82</u>	<u>1.75</u>	<u>0.73</u>	<u>1.02</u>	2.5	2.0	0.50
Total population	<u>207,572</u>				N/A	N/A	0.41	N/A	N/A	0.29*
Note: Non-residents typically use passive spaces; therefore, for the non-residential study area, only passive open space ratios are calculated. For the residential study area, active, passive, and total park space ratios are calculated. * Weighted average combining 0.15 acres per 1,000 non-residents and 0.50 acres per 1,000 residents.										

Table 5-12
2032 Future With the Proposed Action: Open Space Ratios Summary

Ratio	DCP Guideline	Existing Ratio	Future Without the Proposed Action	Future with the Proposed Action	Percent Change Future Without to Future With the Proposed Action
			Ratio	Ratio	Ratio
Non-Residential Study Area					
Passive/non-residents	0.15	<u>0.39</u>	0.35	<u>0.32</u>	<u>-8.05</u>
Passive/total population	<u>0.28/0.29/0.29*</u>	0.25	0.21	0.20	<u>-6.84</u>
Residential Study Area					
Total/residents	2.5	<u>2.19</u>	<u>1.78</u>	<u>1.75</u>	<u>-1.72</u>
Passive/residents	0.5	<u>1.24</u>	<u>1.04</u>	<u>1.02</u>	<u>-1.72</u>
Active/residents	2.0	<u>0.95</u>	<u>0.74</u>	<u>0.73</u>	<u>-1.72</u>
Passive/total population	<u>0.28/0.29/0.29*</u>	<u>0.47</u>	0.42	0.41	<u>-2.52</u>
Note: Non-residents typically use passive spaces; therefore, for the non-residential study area, only passive open space ratios are calculated. For the residential study area, active, passive, and total park space ratios are calculated. * Weighted average combining 0.15 acres per 1,000 non-residents and 0.50 acres per 1,000 residents. <u>Guidelines for existing/ future without/ future with the proposed action conditions are listed.</u>					

IMPACT SIGNIFICANCE

QUANTITATIVE DISCUSSION

Non-Residential Study Area

In the future with the proposed action, the passive ratio for non-residents in the non-residential study area would be more than double the level recommended by DCP. As in No Action conditions, the passive ratio for the total population in the non-residential study area would continue to be below the recommended weighted average ratio of 0.29 acres per 1,000 residents and workers. The *CEQR Technical Manual* acknowledges that its guidelines are not feasible in many parts of the city and therefore are not considered impact thresholds. Thus, while the passive open space ratio would decline by 6.84 percent under the Master Plan, this only represents a decrease from 0.21 to 0.20 acres per 1,000 residents and workers. Therefore, the proposed action is not expected to result in significant adverse open space impacts in the non-residential study area.

Residential Study Area

In the residential study area, passive open space ratios would exceed DCP recommendations, while the active ratio and total open space ratio would continue to fall short of DCP recommendations. However, it is recognized that these recommendations are not feasible for many areas of the city, and they are not considered impact thresholds. Furthermore, the total open space ratio and the active open space ratio would decline by less than 2 percent in the future with the proposed action. In terms of quantitative factors, the proposed action would not result in a significant adverse impact on open spaces in the residential study area.

QUALITATIVE DISCUSSION

While the proposed action would add to the population of the area, it would also provide active recreation facilities for Fordham students, faculty, and staff in the Student Center. Because these facilities would not regularly be open to the public, they are not counted in the quantitative analysis. Nevertheless their availability would reduce the demands that the new Fordham population would put on publicly accessible open space in the study area. Further, as noted above, the central campus open space would be more useable, better configured, and more easily accessible to the public than the existing open space on the podium. While Fordham intends to allow the public to continue to use this space, it is not counted in the quantitative analysis because it is open to the public at Fordham's discretion.

In assessing the significance of the projected decline in the open space ratios with the proposed action, the destination open spaces beyond the study area including most of Central Park, Riverside Park, and Hudson River Park; would be used and should be considered. In addition, private open space and recreational facilities—such as the YMCA at West 63rd Street and Central Park West—would continue to provide fitness and exercise opportunities for those in the area.

CONCLUSIONS

The analysis of open space ratios and qualitative factors not accounted for in the quantitative analysis indicate that the reduction in available open space would not be considered significant. Under existing conditions and in the future without and with the proposed action, passive open space ratios for non-residents exceed the city's open space planning guidelines. However, similar to conditions in many areas in Manhattan, the open space ratios for active and total open space, as well as passive ratios for the combined resident and non-resident population, are below DCP guidelines. These guidelines are considered benchmarks that indicate how well-served an area is by open space, and ratios that are below DCP guidelines generally indicate less access to open space. However, the *CEQR Technical Manual* recognizes that these guidelines are goals that are not feasible for many areas of the city, and they are not considered specific impact thresholds. In addition, open space shortfalls in the quantitative analysis would be offset by the availability of significant open spaces—such as Central Park, Riverside Park, and Hudson River Park—just outside the study area. Overall, the proposed action would not result in significant adverse impacts on open space and recreational facilities. *